

REMARKS

Claims 1-14 remain pending in this application after entry of this amendment. Claims 2-4, 8, and 11, have been amended herein. Favorable reconsideration is respectfully requested in light of the amendments and remarks submitted herein.

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5). Applicant respectfully traverses this rejection.

The Examiner objected to the specification because a marked up copy was not presented. A marked up copy of the specification, as well as a clean copy has been provided herewith.

The Examiner objected to claim 11 because it included the word "culling. Applicant respectfully traverses this objection.

Claims 2-8 are rejected under 35 U.S.C. § 112, second paragraph. Applicant respectfully traverses this rejection.

Claims 1-10 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sumitomo (JP 52-6782) in view of Sandt (U.S. Patent No. 2,833,686) and Smuck et al. (DE 420920). Applicant respectfully traverses this rejection.

Claims 11-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smuck et al. Applicant respectfully traverses this rejection.

Drawings

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 7 and 8 in Figure 1 and 19 in Figure 1.

Applicant has added description of the pressure surfaces 7 and 8 to the specification at page 11. Applicant respectfully asserts that this is not new matter because the particular words were inadvertently left out of the English translation of the original PCT application, which was filed in Danish. However, it is also clear from Figure 1 that the features 7 and 8 are pressure surfaces with cooling means. Also, please note that the description of Figure 2 has been amended to clarify that the pressure surfaces there are 17 and 18 as the reference numerals indicate.

Applicant has deleted reference numeral 19 from Figure 2. Applicant respectfully asserts that the deletion thereof is not new matter because the reference numeral was inadvertently present and its deletion does not add any new information.

Applicant respectfully asserts, based on the changes to the Figures and the Specification, that this objection should be withdrawn.

Specification

Applicant has presented the changes to the specification in the marked up version (beginning at page 2) and also presents a clean copy. The specification was amended to remove misspellings and change the language to be written in more "full, clear, concise and exact terms." Applicant respectfully asserts that the changes made to the specification do not add any new matter. In light of the changes to the specification, Applicant respectfully requests that this objection be withdrawn.

Claim Objections

The Examiner objected to claim 11 because it included the word "culling". Claim 11 has been amended to replace "culling" with "cooling". In light of this amendment, Applicant respectfully asserts that this objection should be withdrawn.

Rejections under 35 U.S.C. § 112

Claims 2-8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner notes that the limitation "the/said composite material" has insufficient antecedent basis. Applicant has adopted the Examiner's suggestion and amended "composite material" to "laminated foil and woven material". In light of the amendments to claims 2-4 and 8, Applicant respectfully requests that the rejection be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-10 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sumitomo (JP 52-6782) in view of Sandt (U.S. Patent No. 2,833,686) and Smuck et al. (DE 420920).

In order to establish *prima facie* obviousness, three basic criteria must be met, namely: (1) there must be some suggestion or motivation to combine the references or modify the reference teaching; (2) there must be a reasonable expectation of success; and (3) the reference or references when combined must teach or suggest each claim limitation. Applicant submits that the Office Action failed to state a *prima facie* case of obviousness, and therefore the burden has not properly shifted to Applicant to present evidence of nonobviousness.

Applicant has reviewed the Examiner's rejection and the accompanying reasoning and has noticed that the time for the cooling is not discussed. Claim 1 recites cooling "under pressure from about 300 to 420° C to about 50° C in about 0.1 to about 240 seconds". Therefore, Applicant asserts that the Examiner has failed to establish a *prima facie* case of obviousness because the references fail to teach all of the claim limitations, i.e., there is no disclosure or suggestion regarding the time in which cooling takes place.

In Sumitomo, the lamination process has a long process time and no cooling process is described, in particular, no rapid cooling with simultaneous application of pressure. The laminate that is obtained is therefore a completely different type of laminate than the composite laminates obtained by the present invention.

Sandt mentions that pressure is maintained during cooling. However, the cooling that is disclosed is slow and the laminate is only cooled from about 380° C to below 280° C within 15 minutes (900 seconds). The laminate may shrink during such a slow cooling and when the pressure is released, the laminate may wrinkle during further cooling. The lamination material described in Sandt is a modified PTFE having a different cooling response than "virgin" PTFE films. This modified PTFE requires a special lamination process that is not applicable if virgin PTFE films are to be laminated.

Smuck et al. offers no disclosure that the pressing and cooling is carried out simultaneously (see page 14, lines 20-22 translation). Smuck describes a continuous lamination, where endless bands contact each side of the laminate, with pressure and cooling stations successively arranged. The bands have an insulating effect making the cooling less efficient.

None of the references, or combination of references teach that the cooling is carried out in about 0.1 to about 240 seconds. Either the references don't specify cooling time or give a long cooling time (i.e., 15 minutes - 900 seconds). The Examiner asserts that based on the thickness, optimal cooling would be well within those of skill in the art. However, Applicant asserts that

based on the cited references, or combinations thereof, one of skill in the art would not have been lead to utilize a rapid cooling because the only cooling conditions that are specified by any of the references are extended times.

The rapid cooling that the Applicant utilizes offers advantages in that the laminate material is fixed quickly and any risk of further shrinking and wrinkling is eliminated. If one of skill in the art were to utilize the cooling of Sumitomo, Smuck, Sandt, or some combination thereof, the laminate would still have a soft structure, which would allow it to shrink and wrinkle when further cooled.

None of the cited references, or combination thereof disclose or suggest such a short cooling time. Furthermore, none of the cited references, or combinations thereof disclose or suggest cooling from about 300 to 420° C to about 50° C while maintaining pressure during the cooling process. Therefore, Applicant respectfully requests that this rejection should be withdrawn in light of the comments offered above.

Claims 11-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smuck et al. Claim 11 has a similar limitation, i.e., that the cooling is "under pressure from about 300 to 420° C to about 50° C in about 0.1 to about 240 seconds". Therefore, Applicant asserts that the Examiner has failed to establish a *prima facie* case of obviousness because the reference fails to teach or suggest all of the claim limitations, i.e., there is no disclosure or suggestion regarding the time in which cooling takes place. Applicant reiterates the discussion of Smuck that was provided above and notes that it does not teach or suggest all of the claim limitations. Therefore, Applicant respectfully requests that this rejection be withdrawn.

Conclusion


In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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7/25/03



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